

## ABSTRACT OF THE DISCLOSURE

### MAINTAINING APPLICATION OPERATIONS WITHIN A SUBOPTIMAL GRID

#### 5 ENVIRONMENT

A method, system, and program for maintaining application operations within a suboptimal grid environment are provided. An application profile expresses the operational requirements of an application across multiple heterogeneous resource platforms and expresses  
10 the priority of modular breakdown of an application so that usage of resources by the application can be adjusted when suboptimal conditions are detected for the application. The application is submitted to at least one resource node from among multiple resource nodes within a grid environment. Then, a service availability management agent monitors a performance status of the at least one resource node. The service availability management agent compares the  
15 performance status with an operational requirement specified for the platform of the at least one resource node in the application profile. If the performance status does not meet the operational requirement, then the service availability management agent adjusts the use by the application the resource nodes according to the application profile, such that the application continues to operate when suboptimal conditions arise in a grid environment.